

1 **CLAIMS**

2       1.     A method comprising:  
3       receiving a request for an internal web page from an external browser  
4       application;  
5       identifying at least one internal link in the internal web page;  
6       modifying the at least one internal link such that the internal link is  
7       accessible by the external browser application; and  
8       communicating the requested web page, including the modified internal  
9       link, to the external browser application.

10  
11       2.     A method as recited in claim 1 wherein modifying the at least one  
12       internal link includes modifying a portion of a uniform resource locator associated  
13       with the at least one internal link.

14  
15       3.     A method as recited in claim 1 wherein modifying the at least one  
16       internal link includes modifying a protocol associated with the at least one internal  
17       link.

18  
19       4.     A method as recited in claim 1 wherein modifying the at least one  
20       internal link includes modifying a port associated with the at least one internal  
21       link.

1           5.     A method as recited in claim 1 wherein modifying the at least one  
2 internal link includes modifying a server name associated with the at least one  
3 internal link.

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5           6.     A method as recited in claim 1 wherein the request for an internal  
6 web page is received via the Internet.

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8           7.     A method as recited in claim 6 wherein the internal web page is  
9 stored on a server coupled to an internal network.

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11          8.     A method as recited in claim 1 wherein modifying the at least one  
12 internal link includes accessing string mappings from a link translation table and  
13 applying the string mappings to the at least one internal link.

14  
15          9.     A method as recited in claim 1 further comprising:  
16 identifying link information contained in the request for an internal web  
17 page; and  
18 storing the identified link information in a link translation table.

19  
20          10.    A method as recited in claim 9 further comprising deleting the  
21 identified link information from the link translation table after communicating the  
22 requested web page to the external browser application.

1           **11.** One or more computer-readable memories containing a computer  
2 program that is executable by a processor to perform the method recited in claim  
3 1.

4  
5           **12.** A method comprising:  
6 receiving a request for an internal web page from an external source;  
7 identifying link information contained in the request for an internal web  
8 page;  
9 storing the identified link information in a link translation table;  
10 retrieving the internal web page;  
11 translating any internal links in the internal web page such that the internal  
12 links are accessible by the external source; and  
13 communicating the internal web page, including the translated internal  
14 links, to the external source.

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16           **13.** A method as recited in claim 12 wherein translating any internal  
17 links in the internal web page includes accessing data contained in the link  
18 translation table.

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20           **14.** A method as recited in claim 13 wherein the link translation table  
21 includes at least one entry defined by a user.  
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23  
24  
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1           **15.**   A method as recited in claim 12 wherein identifying link  
2 information contained in the request includes identifying data in a header  
3 associated with the request.

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5           **16.**   A method as recited in claim 12 further comprising deleting the  
6 identified link information from the link translation table after communicating the  
7 internal web page to the external source.

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9           **17.**   A method as recited in claim 12 wherein the request for an internal  
10 web page is received via a public network and wherein the internal web page is  
11 stored on a server coupled to a private network.

12  
13           **18.**   One or more computer-readable memories containing a computer  
14 program that is executable by a processor to perform the method recited in claim  
15 12.

16  
17           **19.**   A system comprising:  
18           a link translation table; and  
19           a translation module coupled to the link translation table, wherein the  
20 translation module is to receive a request for an internal web page and to identify  
21 any internal links in the requested internal web page, wherein the translation  
22 module further modifies any internal links using data contained in the link  
23 translation table and generates the requested web page data, including the  
24 modified internal links, for communication to a source of the internal web page  
25 request.

1  
2           **20.**     A system as recited in claim 19 wherein the system is contained in a  
3 firewall, wherein the firewall is coupled between a public network and an internal  
4 network associated with the internal web page.

5  
6           **21.**     A system as recited in claim 19 wherein the system is contained  
7 within a web server.

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9           **22.**     A system as recited in claim 19 further comprising a configuration  
10 module coupled to the translation module, wherein the configuration module  
11 permits editing of data contained in the link translation table.

12  
13           **23.**     A system as recited in claim 19 wherein the link translation table  
14 contains mappings of portions of links between internal links and external links,  
15 wherein internal links are accessible by an internal device coupled to an internal  
16 network and external links are accessible by an external device coupled to an  
17 external network.

18  
19           **24.**     A system as recited in claim 19 wherein the link translation table  
20 contains at least one user-defined entry and at least one entry generated by the  
21 translation module in response to the request for an internal web page.

1           **25.** One or more computer-readable media having stored thereon a  
2 computer program that, when executed by one or more processors, causes the one  
3 or more processors to:

4           receive a request for an internal web page via a public network;

5           retrieve the requested internal web page;

6           determine whether the internal web page contains any internal links;

7           if the internal web page contains at least one internal link:

8                 modify the at least one internal link such that the internal link is  
9 accessible via the public network; and

10           generating data representing the requested internal web page,  
11 wherein the generated data includes the modified internal link.

12  
13           **26.** One or more computer-readable media as recited in claim 25  
14 wherein the request for an internal web page is received via the Internet from a  
15 web browser application.

16  
17           **27.** One or more computer-readable media as recited in claim 25  
18 wherein the at least one internal link is modified by accessing link translation data  
19 contained in a link translation table.

20  
21           **28.** One or more computer-readable media as recited in claim 25  
22 wherein the one or more processors further modify the at least on internal link  
23 using information contained in a header associated with the received request for an  
24 internal web page.

1           **29.**    An apparatus comprising:  
2           means for receiving a request for a web page associated with an internal  
3 network; and  
4           means for translating internal links contained in the web page, wherein the  
5 internal links are accessible via the internal network, and wherein the means for  
6 translating translates any internal links contained in the web page into external  
7 links that are accessible via an external network.

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9           **30.**    An apparatus as recited in claim 29 further comprising means for  
10 communicating web page data, including any translated links, to a source of the  
11 request for the web page.

12  
13           **31.**    An apparatus as recited in claim 29 wherein the means for  
14 translating translates internal links by modifying a portion of a uniform resource  
15 locator associated with the internal links.

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17           **32.**    An apparatus as recited in claim 29 wherein the means for  
18 translating translates internal links by replacing a first uniform resource locator  
19 associated with the internal links with a second uniform resource locator  
20 associated with external versions of the internal links.

21  
22           **33.**    An apparatus as recited in claim 29 wherein the means for  
23 translating translates internal links by replacing a first protocol designator with a  
24 second protocol designator.  
25

1           **34.**    An apparatus as recited in claim 29 wherein the means for  
2 translating translates internal links by replacing a first server name associated with  
3 the internal links with a second server name associated with external versions of  
4 the internal links.

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6           **35.**    An apparatus as recited in claim 29 further comprising means for  
7 storing link translation data, wherein the means for storing link translation data is  
8 coupled to the means for translating internal links.

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10          **36.**    An apparatus as recited in claim 35 wherein the means for storing  
11 link translation data contains portions of internal links and corresponding portions  
12 of external links.

13  
14          **37.**    An apparatus as recited in claim 35 wherein the means for storing  
15 link translation data contains internal port numbers and corresponding external  
16 port numbers.